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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/611,764 | 07/07/2000 | Harald Feuerherm | FEUERHERM ET AL-2 | 7406 |

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| EXAMINER |
|---|
| LEYSON, JOSEPH S |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1722 | 9 |

DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

mb 9

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 09/611,764 | FEUERHERM ET AL |
| | Examiner | Art Unit |
| | Joseph Leyson | 1722 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *07 July 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-26* are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s) _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other.

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species I, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, and the lower edge of the sleeve being rounded off or having the profiled edge, and to claims 2 and 3;

Species II, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the sleeve having the ring-shaped collar at least at one end, the collar serving as the sliding surface, and to claim 4;

Species III, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of

the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring gap nozzle, the sleeve having the projections arranged on the outer periphery at least at one end, the projections serving as the sliding surfaces, and to claim 5;

Species IV, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the diameter of the sleeve at the upper end on the inlet side being coordinated with the inside diameter of the sleeve at the nozzle outlet in dependence on the pressure profile in such a way that the axial force caused by the pressure of the melt to act downwardly on the sleeve in the inlet zone can be largely compensated at least by 50% by the lower pressure of the melt prevailing at the nozzle outlet, the pressure exerting an upwardly directed force on the sleeve, and to claim 13;

Species V, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube

with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the points of force being arranged in the cross-sectional plane which is fixed in such a way that with maximum deformation of the sleeve, distortions of 60 μm at most occur on the upper face of the sleeve in the axial direction, and to claim 14;

Species VI, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the sleeve having at least one outside collar, the collar being realized in such a way that the moment of area deviation determined for the wall profile of the sleeve comes to approximately zero in the center of gravity of the area, and that the points of force application of the setting devices are arranged in the cross-sectional plane in which the center of gravity of the area of the wall profile is disposed viewed in the longitudinal section, and to claim 15;

Species VII, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the wall profile of the sleeve whose moment of area deviation determined in the center of gravity of the area substantially deviates from zero, the point of force application of the setting devices being arranged offset versus the cross-sectional plane in which the center of gravity of the area of the wall profile is disposed viewed in the longitudinal section, for the purpose of compensating moment of area deviation, and to claim 16;

Species VIII, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the setting devices being connected with the sleeve below the line of action of force extending inclined upwardly, and to claim 17;

Species IX, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the sleeve radially movably abutting sliding surfaces of the nozzle body with its upper and lower faces, and to claim 18;

Species X, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the sleeve being arranged without lower support on the face side on the outlet of the ring gap nozzle and having the supporting surface for the radially movable support, the supporting surface being arranged on the periphery of the sleeve with the spacing from the lower end of the sleeve, the sleeve having the collar at its upper end, the collar being radially movably held between sliding surfaces, and to claim 20;

Species XI, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the sleeve being arranged without lower support on the face side on the outlet of the ring gap nozzle and having the supporting surface for the radially movable support, the supporting surface being arranged on the periphery of the sleeve with the spacing from the lower end of the sleeve, the sleeve having the support collar below the cross sectional plane in which the setting devices are applied, the support collar radially movably resting on the holding ring, and the thin-walled apron limiting the melt channel being molded on below the support collar, and to claim 21;

Species XII, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the sleeve being arranged

without lower support on the face side on the outlet of the ring gap nozzle and having the supporting surface for the radially movable support, the supporting surface being arranged on the periphery of the sleeve with the spacing from the lower end of the sleeve, the sleeve having cams on the peripheral side, the cams radially movably resting on the holding ring and being coupled to the setting devices, and to claims 22 and 23;

Species XIII, drawn to the extruder head embodiment including the sleeve being realized from the upper end on the inlet side to the outlet of the nozzle in the form of a cylinder or tube with a longitudinal profile approximated to the shape of the cylinder, the lower edge of the sleeve on the inside of the tube shaping the exiting cross-section of the stream of melt exiting from the ring-gap nozzle, the sleeve being acted upon on the outer side of its jacket by the pressurized fluid, the fluid compensating an axial force exerted on the sleeve by the pressure in the melt channel, and to claim 24;

Species XIV, drawn to the extruder head embodiment including the sleeve being arranged in the body of the nozzle and having the conical widening toward the end on the nozzle outlet side, wherein the wall profile, the height of the points of force application of the setting devices and the points of force application being located out of center in the

longitudinal direction of the sleeve, are coordinated with one another in such a way that the upper face of the sleeve guided on the sliding surface of the nozzle body at least approximately maintains its plane parallelism in relation to the sliding surface when the sleeve is deformed, the inlet zone of the sleeve being in the form of a cylinder or tube with a longitudinal profile adapted to the shape of the cylinder, and to claim 8;

Species XV, drawn to the extruder head embodiment including the sleeve being arranged in the body of the nozzle and having the conical widening toward the end on the nozzle outlet side, wherein the wall profile, the height of the points of force application of the setting devices and the points of force application being located out of center in the longitudinal direction of the sleeve, are coordinated with one another in such a way that the upper face of the sleeve guided on the sliding surface of the nozzle body at least approximately maintains its plane parallelism in relation to the sliding surface when the sleeve is deformed, the sleeve having conical widenings at both ends, whereby the conical widening at the nozzle outlet is larger than the widening at the upper end on the inlet side, and to claims 9 and 10;

Species XVI, drawn to the extruder head embodiment including the sleeve being arranged in the body of the nozzle and having the conical widening toward the end on the nozzle outlet side, the points of force application of the setting devices being fixed at half of the height of the sleeve, the sleeve being provided with the collar at least on one end, the collar being realized in such a way that the upper face of the sleeve guided on the sliding surface of the nozzle body at least approximately maintains its plane parallelism in relation to the sliding surface when the sleeve is deformed, and to claim 7;

Species XVII, drawn to the extruder head embodiment including the sleeve being arranged on the mandrel and having the conical widening toward the upper end on the inlet side and/or the conical taper toward the end on the nozzle outlet side, wherein the wall profile of the sleeve and the height of the points of force application of the setting devices along the sleeve are coordinated with each other in such a way that the upper face of the sleeve guided on the sliding surface of the nozzle body maintains at least approximately its plane parallelism in relation to the sliding surface when the sleeve is deformed, and to claims 11 and 12; and

Species XVIII, drawn to the extruder head embodiment including the sleeve arranged at the end of the nozzle outlet

side defining the nozzle gap, the sleeve being radially movably guided on sliding surfaces supporting the sleeve in the upward and downward directions, the sleeve being supported in the axial direction on the springs or the force-generating elements having the same effect, the springs or elements compensating the axial force exerted on the sleeve by the pressure of the melt, and to claims 25 and 26.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic to all of the other claims. Claim 1 is generic to claims 2-5 and 13-24. Claim 19 is generic to claims 20-23. Claim 6 is generic to claims 8-10.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which

are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. A telephone call was not made to applicant to request an oral election to the above restriction requirement because it is complex.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently

named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (703) 308-2647. The examiner can normally be reached on M-F(8:30-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (703) 308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

jl
June 20, 2003

JAMES P. MACKEY
PRIMARY EXAMINER

6/20/03